TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2018-08-13-03** **Date: 16-08-18**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads at Katteramma temple surrounding area in ward no.10 (Doddabommasandra) Vidyaranyapura Sub Division.
Agency	:	Executive Engineer, KRIDL, #280,59th Cross road, 17th 'C' Main road, 3rd 'Y' Block, Rajajinagara, Bangalore-560 010
Customer Reference	:	BBMP/EE/BTP/WO/60/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	13-08-18
Sample ID No	:	2018-08-13-03/01
Type of Mix	:	DBM(Dense Bitumnous Macadam)
Date of test	:	13-08-18

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.2	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

Note:-
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TEST RESULTS OF BITUMEN BINDER CONTENT AND GRADATION FOR DBM (IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2018-08-27-01**	**Date: 28-08-18**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.	
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.	
Project Name	:	Improvements to roads at Katteramma temple surrounding area in ward no.10 (Doddabommasandra) Vidyaranyapura Sub Division.	
Agency	:	Executive Engineer, KRIDL, #280,59th Cross road, 17th 'C' Main road, 3rd 'Y' Block, Rajajinagara, Bangalore-560 010	
Customer Reference	:	BBMP/EE/BTP/WO/60/2018-19	
Source of Sample	:	Sample supplied by Agency	
Date of Receipt	:	27-08-18	
Sample ID No	:	2018-08-27-01/01	
Type of Mix	:	DBM (Dense Bituminous Macadam)	
Date of test	:	27-08-18	

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	475	474
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	5.0	5.2
4	Average percentage	%	5.1	

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Lab ID : CP-RW-2018-08-27-01
Sample ID No : 2018-08-27-01/01 Date: 28-08-18

AFTER EXTRACTION(Trail-1)

Weight of Sample(gm) : 475

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0.0	100.0	100
26.5	45	45	9.5	90.5	90-100
19	47	92	19.4	80.6	71-95
13.2	47	139	29.2	70.8	56-80
4.75	150	289	60.7	39.3	38-54
2.36	35	324	68.1	31.9	28-42
0.3	65	389	81.8	18.2	7-21
0.075	65	454	95.5	4.5	2-8

AFTER EXTRACTION(Trail-2)

Weight of Sample(gm) : 474

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10(grading -2)
37.5	0	0	0.0	100.0	100
26.5	42	42	8.9	91.1	90-100
19	48	90	19.0	81.0	71-95
13.2	15	105	22.2	77.8	56-80
4.75	150	255	53.8	46.2	38-54
2.36	74	329	69.4	30.6	28-42
0.3	55	384	81.0	19.0	7-21
0.075	75	459	96.8	3.2	2-8

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TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	CP-RW-2018-08-20-02 **Date: 22-08-18**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads at Katteramma temple surrounding area in ward no.10 (Doddabommasandra) Vidyaranyapura Sub Division.
Agency	:	Executive Engineer, KRIDL, #280,59th Cross road, 17th 'C' Main road, 3rd 'Y' Block, Rajajinagara, Bangalore-560 010
Customer Reference	:	BBMP/EE/BTP/WO/60/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	20-08-18
Sample ID No	:	2018-08-20-02/01
Type of Mix	:	BC-Plant (Bituminous Concrete)
Date of test	:	20-08-18
Oven Dry Weight	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	300	300	6.0	94.0	90-100
9.5	450	750	15.0	85.0	70-88
4.75	1200	1950	39.0	61.0	53-71
2.36	150	2100	42.0	58.0	42-58
1.18	550	2650	53.0	47.0	34-48
0.6	450	3100	62.0	38.0	26-38
0.3	600	3700	74.0	26.0	18-28
0.15	600	4300	86.0	14.0	12-20
0.075	250	4550	91.0	9.0	4-10
PAN	450	5000	100	0.0	0

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End of Report

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2018-08-20-02** **Date: 23-08-18**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.
Project Name	:	Improvements to roads at Katteramma temple surrounding area in ward no.10 (Doddabommasandra) Vidyaranyapura Sub Division.
Agency	:	Executive Engineer, KRIDL, #280,59th Cross road, 17th 'C' Main road, 3rd 'Y' Block, Rajajinagara, Bangalore-560 010
Customer Reference	:	BBMP/EE/BTP/WO/60/2018-19
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	20-08-18
Sample ID No	:	2018-08-20-02/01
Type of Mix	:	BC(Bitumenous Concrete)
Date of test	:	20-08-18

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	97.5	Minimum Retained Coating 95%
2	97.5	2.5		
3	97.0	3.0		

Note:-
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TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2018-08-20-02**	**Date: 23-08-18**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.	
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.	
Project Name	:	Improvements to roads at Katteramma temple surrounding area in ward no.10 (Doddabommasandra) Vidyaranyapura Sub Division.	
Agency	:	Executive Engineer, KRIDL, #280,59th Cross road, 17th 'C' Main road, 3rd 'Y' Block, Rajajinagara, Bangalore-560 010	
Customer Reference	:	BBMP/EE/BTP/WO/60/2018-19	
Source of Sample	:	Hot Mix Plant, Bangalore	
Sample Condition	:	Satisfactory	
Date of Receipt	:	20-08-18	
Sample ID No	:	2018-08-20-02/01	
Type of Mix	:	BC (Bituminous Concrete)	
Date of test	:	20-08-18	

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	14.73	13.43	10KN(min)
2	Marshal flow at 60°C, mm	3.08	3.75	2-4
3	Percent air Voids	5.63	4.17	3-5
4	Percent Voids in mineral Aggregate(VMA %)	13.82	14.73	13-15
5	Percent Voids filled with Bitumen(VFB %)	67.09	65.20	65-75
6	Density, g/cc	2.25	2.26	–

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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID	:	**CP-RW-2018-08-29-01**	**Date: 30-08-18**
Customer	:	Assistant Executive Engineer, Vidyaranyapura Sub Division, BBMP, Bangalore.	
Address	:	Vidyaranyapura Sub Division, BBMP, Bangalore.	
Project Name	:	Improvements to roads at Katteramma temple surrounding area in ward no.10 (Doddabommasandra) Vidyaranyapura Sub Division.	
Agency	:	Executive Engineer, KRIDL, #280,59th Cross road, 17th 'C' Main road, 3rd 'Y' Block, Rajajinagara, Bangalore-560 010	
Customer Reference	:	BBMP/EE/BTP/WO/60/2018-19	
Source of Sample	:	Sample supplied by Agency	
Date of Receipt	:	29-08-18	
Sample ID No	:	2018-08-29-01/01	
Type of Mix	:	BC (Bituminous Concrete)	
Date of test	:	29-08-18	

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	468	469
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6.40	6.20
4	Average percentage	%	6.3	

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Lab ID : CP-RW-2018-08-29-01 Date: 30-08-18

Sample ID : 2018-08-29-01/01

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 468

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	0	0	0.0	100.0	90-100
9.5	103	103	22.0	78.0	70-88
4.75	94	197	42.0	58.0	53-71
2.36	42	239	51.0	49.0	42-58
1.18	5	243	52.0	48.0	34-48
0.6	89	332	71.0	29.0	26-38
0.3	23	356	76.0	24.0	18-28
0.15	33	388	83.0	17.0	12-20
0.075	47	435	93.0	7.0	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 469

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	38	38	8.0	92.0	90-100
9.5	94	131	28.0	72.0	70-88
4.75	61	192	41.0	59.0	53-71
2.36	61	253	54.0	46.0	42-58
1.18	19	272	58.0	42.0	34-48
0.6	61	333	71.0	29.0	26-38
0.3	33	366	78.0	22.0	18-28
0.15	33	399	85.0	15.0	12-20
0.075	42	441	94.0	6.0	4-10

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